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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/118,359	07/17/1998	J. DENNIS KELLER	M122-587	8927

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WELLS ST. JOHN P.S.
601 W. FIRST
SUITE 1300
SPOKANE, WA 99201-3828

EXAMINER

ESTRADA, MICHELLE

ART UNIT	PAPER NUMBER
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2823

DATE MAILED: 02/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/118,359

Applicant(s)

KELLER ET AL.

Examiner

Michelle Estrada

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14,25-31 and 41-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14,25-31 and 41-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 2, 7, 9, 41, 42 and 51-57 are rejected under 35 U.S.C. 102(e) as being anticipated by Araki et al.

The rejection is applied as stated in the office action mailed 10/16/01.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-6, 8, 10-14, 25-31, 43-50 and 58-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al. as applied to claims 1, 2, 7, 9, 41, 42 and 51-57 above, and further in view of the stated examiner's comments.

The rejection is applied as stated in the office action mailed 10/16/01.

Response to Arguments

Applicant's arguments filed January 16, 2002 have been fully considered but they are not persuasive.

With respect to the argument in page 16, 1st and 2nd paragraph of the amendment filed 1/16/02, Araki et al. disclose forming a three layered structure 104 in which the first two layers (non-doped/doped) could be characterized as a "first layer of conductively doped semiconductive material over a semiconductive substrate" and the third one (non-doped) is a "second layer of substantially undoped semiconductive material over the first layer" as recited in claim 9.

With respect to page 16, 3rd paragraph, Araki et al. disclose forming a dielectric layer 106 over 104 which consists of the first and second layers as stated in page 2 of the office action mailed 10/11/00.

With respect to page 16, 4th paragraph, Araki et al. disclose forming a conductive material 107 over 106 which is the 3rd layer, as recited in claim 9, as stated in page 2 of the office action mailed 10/11/00.

With respect to page 16, last paragraph, Araki et al. disclose forming a floating gate as recited in claim 9 (Col. 4, line 62).

With respect to page 17, 2nd paragraph, it is agreed that Araki et al. disclose forming polysilicon layers non-doped/doped/non-doped to form the floating gate. The basis of the rejection is that the first two layers (non-doped/doped) of 104 could be characterized as an "inner first portion" as recited. Applicant has not pointed to claim language or provided arguments that obviate such a characterization. The first two layers of polysilicon 104 could be labeled as a single layer with dopant in the upper portion. For the purpose of rejection of claims 1, 2, 7 and 9, the doped layer could be labeled as the "inner first portion". Claims 41, 42, 51 and 58 require that the layers non-doped/doped be labeled as the "inner first portion" but do not require that the "inner first portion" be uniformly doped allowing layers non-doped/doped to be labeled as the "inner first portion".

The claims do not require that the "inner first portion" be uniformly doped or of a homogeneous composition.

On page 17, 3rd and 4th paragraph, applicant argues that "third" and "second" are a recitation of total number of layers. However, the terms are seen to be merely a label.

With respect to page 18, 2nd paragraph, by doping the middle layer (doped layer) of 104 Araki et al. disclose "producing conductivity enhancing impurity in the inner first portion to a greater concentration than conductivity enhancing impurity in the outer second portion" because no dopants are provided in the last layer (non-doped) of the structure 104.

With respect to page 19, 1st paragraph, it is not necessary for Araki et al. to recognize that the first two layers (non-doped/doped) of 104 could be characterized as "inner first portion". It is sufficient that such a characterization is reasonable.

In response to applicant's argument on page 19, 3rd paragraph, the "inner first portion" includes the first two layers of 104 (non-doped/doped).

With respect to page 19, 4th paragraph, the examiner does not admit that the reference does not set forth the invention as recited in claims 1 and 9. The argument that a structure can be characterized as recited is an argument that the structure is encompassed by the claim language because the claimed structure is being labeled in a way that the structure of the reference could be labeled.

With respect to page 20, 2nd and 3rd paragraphs, the arguments have been addressed above in the discussion that the first two layers of 104 (non-doped/doped) are properly labeled as the "inner first portion".

With respect to page 21, 1st paragraph, applicant ^{misstates} ~~mistakes~~ the rejection. The rejection states "can be characterized as one layer".

With respect to page 22, 3rd paragraph, the teachings of the reference are not being modified as argued as discussed above.

With respect to page 22, 4th paragraph, applicant argues that the reference must provide an "enabling disclosure". The reference does provide an enabling disclosure of the claimed invention because the disclosed device is encompassed by the instant claims as discussed above.

With respect to page 24, 1st paragraph, there is overlap between the dopant concentration of Araki et al. and that recited.

With respect to page 27, 1st paragraph, it is not necessary that the dopant be distributed in the first two layers of 104 (non-doped/doped) of the disclosed structure. The inner first portion would have the recited sheet resistance due to the overlap between the doping concentrations discussed above.

With respect to page 27, 2nd paragraph, the reference has not been modified as argued as discussed above. The rejection is therefore not based on an "obvious to try" rationale.

With respect to page 28, last paragraph, the rejection is based on a single reference.

With respect to page 31, 2nd paragraph, applicant appears to argue that Araki et al. do not provide enabling disclosure for subject matter which is neither claimed nor disclosed as discussed above. Such an argument is not relevant.

With respect to page 31, last paragraph, Araki et al. do not teach away because the disclosed structure is encompassed by the instant claims as discussed above.


Basis for the rejection of all pending claims has been provided above. Motivation has been provided in the rejection of claims 3-6, 8, 10-14, 25-31 and 43-50 under 35 USC 103 as discussed above. Applicant's arguments have been addressed above.


All applicant's arguments have been considered but are not persuasive for the reasons discussed above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Estrada whose telephone number is 703-308-0729. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 703-308-4918. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 (7724, 3431 and 3432) for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


George Fourson
Primary Examiner
Art Unit 2823


MEstrada
February 6, 2002